REMARKS/ARGUMENTS

Claims 1-30 were pending in the present application. By virtue of this response, Claims 1, 8, 12-14 and 19 have been amended, and new Claims 31-38 added. Accordingly, Claims 1-38 are currently under consideration. Amendment or cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented.

Claim Amendments

The Claims have not been renumbered, in spite of the objection to same, to prevent confusion, and also in view of the addition of new Claims 31-38 here.

The Claim 13-14 amendments are only as to form, not responsive to a rejection, and are not intended to be narrowing.

Each of independent Claims 1, 8, 12, and 19 is amended here to recite, e.g., see Claim 1 "said selected control data being ignored by an audio player," (emphasis added). See specification page 5, last paragraph and page 8, first full paragraph which states beginning at line 12 regarding the audio player:

> Playing of the track is not generally stopped if any data error are located, and thus the audio player effectively ignores any data errors which arise. (emphasis added.)

Hence advantageously the erroneous control data is ignored by and thereby not available to or used by the audio player for control purposes, while however it is used by the data reader. This amendment is to clarify the claims and is not relied upon (see arguments below) specifically to distinguish over Tholen, is not narrowing, and is not responsive to any rejection.

Rejections

Pending Claims 1-30 stand rejected under 35 U.S.C. §102(e) as anticipated by Tholen. The Examiner stated in pertinent part:

> Tholen et al. discloses that the copy protection method comprises rendering selected control data incorrect (column 4, lines 34-49). . .
>
> Tholen et al. discloses that the selected control data being inaccessible to, or not generally read by, an audio player, such that an audio player is able to play the audio data [column 9, line 63 to column 10, line 38].
>
> The Examiner rejected the other independent claims citing the same reasoning.

In rejecting the dependent claims, the Examiner stated with regard to Claim 7 and 18 that "Tholen et al. discloses that the control data encoded on the compact disc defining the nature of the tracks is rendered incorrect, as discussed above."

Rejections are Traversed

Applicant traverses all the rejections. It is respectfully submitted that Tholen does not meet or even make obvious the present claims, even without amendment.

As the Examiner clearly understands in accordance with the invention and as specified in the earlier filed amendment in this case, the present invention in one embodiment identifies differences between the control data on a disc which is used by a simple audio player and by a CD-ROM reader for copy control. The present invention then is directed to encoding onto the disc certain errors in that control data. The erroneous data is specifically selected to be ignored by and so have no adverse effect on play of the disc by an audio player (because the audio player ignores this data for control purposes) but has negative effects on any play of the disk by a data reader.

This encoding of the disc control data, with selected errors to have different effects on different types of playback devices when these devices try to access the information on the disc, is neither disclosed or contemplated in Tholen. Tholen, like the Spitzenberger reference earlier cited

by the Examiner, is limited to a technique for CDs (see Tholen col. 2, lines 30-32), wherein the CD implementing the technique is not necessarily playable at all on an audio player. Moreover, Tholen is not directed to copy control but to skipping playing of a CD, and does not render control data incorrect. There is also no indication that Tholen exploits any differences between an audio player and a data reader (e.g., CD-ROM drive). Tholen, like the earlier cited reference Spitzenberger (which the Examiner no longer relies upon in the current rejections), instead is directed to a purportedly inventive combination read/write recording/playback apparatus, and Tholen claims such an apparatus. Moreover the read/write apparatus of Tholen includes special dedicated circuitry to accomplish the stated goal of Tholen of inhibiting reproduction of (skipping) various passages. This dedicated circuitry includes the muting circuit 14 in Tholen Fig. 4 which is controlled by the signals on line 16 provided from the control unit 17. Accompanying this proprietary circuitry 14 of Tholen is associated software executed by control unit 17, the software being shown in Tholen's Figures 9 through 11 flow charts. Hence the Tholen recording/playback apparatus is purportedly novel and inherently a proprietary type device. Note that Tholen claims not only the recording apparatus (his Claim 1) but also the read (playback) apparatus (his Claim 15), making it clear that both of these devices are purportedly inventive.

In contrast, in accordance with the present invention, technical differences between conventional audio players and conventional CD-ROM drives are exploited by providing a particular type of copy protection on the digital audio compact disc. This approach is operative with conventional audio players and conventional data readers, e.g., CD-ROM drives. No special CD-ROM drive (data reader) or special audio player is needed. Hence there is an attendant significant commercial advantage because both the methods and discs in accordance with the present invention are compliant and operative with the conventional players and drives already in use and of the type now being sold. For purposes of commercial acceptance this is an important feature since, of

course, users are reluctant to replace their drives or players and the manufacturers of same are reluctant to design in additional hardware or software where there is no advantage to them. A major drawback of the Tholen approach is requiring the specially designed and built (proprietary) recording/playback apparatus.

Moreover, it is respectfully pointed out that Tholen does not appear to meet at least three aspects of, for instance, present Claim 1.

These aspects are: (1) Tholen is not directed to copy protection; (2) Tholen does not disclose selectively rendering control data incorrect; (3) Tholen does not disclose that the control data rendered incorrect is not used by only certain classes of apparatus.

As to aspect 1, Tholen does not meet the recitation in Claim 1, line 1 of "copy protecting a digital audio compact disc." Instead Tholen, not even mentioning copy protection, is concerned with skipping selected passages upon playback.

As to aspect 2, Tholen does not render any data on the disc incorrect; instead he uses the skip table to avoid playing selected passages using special circuitry 14 and software (Figs 9-11) in his playback apparatus. It is not seen where the Examiner finds any incorrect data in Tholen. The Examiner cites Tholen col. 4, lines 34-49 as meeting this aspect of Claim 1, but this aspect is not disclosed in that part of Tholen, While Tholen does disclose (see col. 4, line 41) that the data content to be skipped was "recorded erroneously" this does not apply to Tholen's control data relating to that erroneous content data.

As to aspect 3, Tholen only discusses his own special playback apparatus which is in his Figs. 1 and 9-11 is directed the function of accessing using the skip table on the disc so as to mute playback of the selected passages and ignores any technical differences between an audio player and a data reader.

Hence, Tholen fails to meet Claim 1 for at least these three reasons.

Hence, it is respectfully submitted that the Examiner did not arrive at an accurate technical conclusion in his rejections. In this respect the rejection lacks technical foundation in the Tholen reference. Moreover, there is nothing in Tholen that would suggest adopting his system to meet Claim 1 since as stated above, Tholen ignores differences between audio players and data readers and focuses instead on his own recording and reproducing apparatus with special hardware and software which uses the skip table data.

Hence it is respectfully submitted that Tholen fails to anticipate Claim 1 and also fails to make Claim 1 obvious.

The claims dependent upon Claim 1, Claims 2-7, distinguish over Tholen for at least the same reasons as does base Claim 1.

Further distinguishing over Tholen, the present invention in certain embodiments uses a particular approach for copy protection, see specification page 8, beginning line 25 "However, the applicants have determined that generally audio players do not read or use the Lead-Out time from the TOC." This of course indicates that audio players may well read (if not use) other data from the TOC including quite possibly some or all of the Tholen skip table data. Hence while a conventional audio player of course might not be able to perform the skip function of Tholen since it lacks the supporting software and circuitry, such a conventional audio player may still be able to read (access) the Tholen skip table data.

Hence Claim 3-6, referring to the control data relating to the "Lead-Out of the disc" being incorrect, each additionally distinguish over Tholen.

Moreover, the Examiner rejected dependent Claim 7 which, it is respectfully submitted, is additionally allowable as reciting "control data encoded on the compact disk defining the nature of the tracks is rendered incorrect." (emphasis added.) Claim 7 reads on present Figs. 6a/6b where some of the tracks are (deliberately) identified as being of the incorrect data type. The Examiner did not cite any particular passage of Tholen as meeting Claim 7. However, there is no suggestion

in Tholen of designating particular tracks as being data tracks rather than audio tracks or otherwise altering the control data "defining the nature of the tracks" so it "is rendered incorrect" in accordance with Claim 7. Hence Claim 7 additionally distinguishes over Tholen.

Independent Claim 8 distinguishes over Tholen for at least the same reasons as pertain to Claim 1. Additionally, Claim 8, like Claim 7 dependent on Claim 1, recites "the control data...defining the nature of the tracks is rendered incorrect." Hence Claim 8 also distinguishes over Tholen for the same reason as Claim 7. Dependent Claims 9-11 are similarly allowable.

At least for the reasons referred to above in connection with Claim 1, Claim 12 distinguishes over Tholen, as do dependent Claims 12 through 18. Claims 14-17 additionally distinguish for similar reasons as Claims 3-5, discussed above. Claim 18 is directed to similar subject matter as Claim 7 and additionally distinguishes over Tholen for the reasons set forth above in connection with Claim 7.

Independent Claim 19 distinguishes over the references for reasons similar to those as discussed above in conjunction with Claim 1 and is similarly allowable, as are the claims dependent thereon. Additionally, dependent Claim 20 distinguishes over Tholen as reciting the "incorrect control data incorrectly identifies each audio track as a data track." As pointed out above in connection with Claim 7, no such feature is suggested or disclosed in Tholen. The same goes for dependent Claim 24.

New Claims

Eight new dependent claims are submitted herein. Two of these new claims are dependent upon each independent claim. New Claim 31 recites "the incorrect control data negatively effects the playability of the audio data in a conventional data reader." (emphasis added.) This emphasizes that the present invention is advantageous in conjunction with, e.g., conventional CD-ROM drives lacking the special muting circuit and accompanying software of Tholen Figs. 1 and 9-11.

It is respectively submitted that in the context of the present specification the "data reader" referred to is a conventional data reader for reading discs conforming to a known standard. See for instance the specification at page 5, beginning line 18, "To ensure that any data reader can read any CD-ROM, the compact disks and readers are also made to standards known, in this case, as Yellow Book standards. (emphasis added.)

Hence the present specification describes a data reader that is of a conventional type and commercially available. It is recognized that the term "conventional" does not appear in this exact context in the present application. However it is believed that conventionality is the clear import of the specification in this context and is an inherent property of the presently disclosed data reader for playing discs conforming to, e.g., the known Yellow Book technical standard.

See MPEP 2163.07 (a) on inherent function theory or advantage in claims. MPEP 2163.07(a) says "By disclosing in a patent application a device that inherently performs a function or has a property, operates according to a theory or has an advantage, the patent application necessarily discloses that function, theory, or advantage, even though it says nothing explicit concerning it. The application may later be amended to recite the function, theory or advantage without introducing prohibited new matter." (emphasis added.) Hence even if the term "conventional" does not appear in this context in the present application, new Claim 31 is well supported by the specification under the inherency doctrine.

Moreover, Tholen in effect teaches away from Claim 31 in describing to the contrary a proprietary and purportedly inventive disc reader shown in detail in his Fig. 1 and claimed in his Claims 1 and 15 as being inventive. Hence Claim 31 additionally distinguishes over Tholen by reciting "conventional", in addition to the dependency of Claim 31 upon base Claim 1.

In accordance with another aspect of the present invention and in accordance with new Claim 32, see the present specification at page 3, beginning line 7:

> This enables the copy protected disc to be played normally on an audio player. However, the data encoded on a copy protected compact disc renders the disc generally unplayable by a data reader. This prevents the use of a data reader to extract or read the data on the disc, whereby copying of the disc is also prevented. Of course, it is no longer possible to use a CD-ROM drive, for example, to play the audio on a legitimately acquired copy protected disc. (emphasis added.)

Therefore, in this embodiment the disc content is not at all playable on a data reader. This differs from both the disclosure and also the intention of Tholen, which, to the contrary, is to skip only certain passages on an audio disc and play all the remainder of the disc content. The remainder of the disc content, of course, must be playable in Tholen or there is no point. See Tholen col. 1, beginning line 61:

> The information recording device presents the user with the option of recording on the record carrier, after the recording of the Table of contents, the opening and closing addresses of specific passages whose reproduction is undesired. When the record carrier is read out, the passages specified by the edit data are not produced at the output, and in this matter reproduction of these passages is inhibited. (emphasis added.)

Thus Tholen, both in detail and in overall purpose, is directed towards skipping only selected passages and playing the remainder of the disc content. In contrast, as pointed out above in embodiments of the present invention, no content of the disc is playable at all on a CD-ROM drive.

New Claim 32 is directed to this feature and recites "the data reader cannot play any of the audio data". This is supported at least by the present specification at page 3, lines 6 through 14,

quoted above in part. Clearly Tholen does not meet Claim 32, nor would it be obvious to modify Tholen's teachings in order to arrive at the subject matter of Claim 32 since the resulting compact disc would be useless, since none of it could be played by any kind of player or reader. Hence Claim 32, in addition to its dependency upon Claim 1, additionally distinguishes over Tholen for this reason.

Claims 33 and 34 are directed respectively to the same subject matter as Claims 31 and 32 but dependent upon Claim 8. Similarly Claims 35 and 36 are directed respectively to the same subject matter as respectively Claims 31 and 32 but dependent upon Claim 12. Claims 37 and 38 are directed respectively to the same subject matter as Claims 31 and 32 but dependent upon Claim 19. Hence all new dependent Claims 31-38 are allowable.

CONCLUSION

In view of the above, all pending claims in this application are believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone interview would expedite prosecution, the Examiner is invited to telephone the undersigned at the number given below. The Examiner's attention is also drawn to the change in the inventor's name, see page 2 above.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 136922002700. However, the Commissioner is not at this time authorized to charge the cost of the issue fee to the Deposit Account.

This paper is filed under Rule 34; the correspondence address for this case is still that of Macrovision Corporation.

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Respectfully submitted,

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